

Michael Van Arsdale
Firearms/Toolmarks Unit
Federal Bureau of Investigation

Summary

Michael Van Arsdale ("Ardsale") will testify as to his education, training and experience. Ardsale has previously testified as an expert witness in federal court. His opinions are based upon his training, experience, and observations made during his examinations.

Ardsale received a .22 Long Rifle caliber Ruger rifle, Model 10/22 ("Ruger") and a magazine. Ardsale will testify as to the condition of these items when received. Ardsale conducted an examination and the rifle functioned normally with the use of a magazine from the laboratory. Ardsale used the magazine (Item 57) that accompanied the Ruger. The magazine (Item 57) follower failed to consistently feed cartridges to the top of the magazine. Ardsale will testify and describe firearm characteristics and terms such as "grooves," "twist," "anvil," and "firing pin." Ardsale will describe what happens to a bullet when it is fired from a firearm, and how bullets are altered or marked after such firing.

Ardsale received several items including but not limited to metal fragments, bullet fragments, shotshell cases, wadding, and cartridges cases.

The Ruger was test fired. Cartridges cases were obtained from the fired Ruger. Ardsale conducted both physical and visual examinations. Ardsale will testify as to the terms "physical examination" and "visual examination." Ardsale will testify as to how bullets are examined at the FBI laboratory and the procedures he followed in this case. Ardsale will testify as to "stages of comparison." Ardsale will testify that the cartridge cases were examined to determine the existence of and compare class characteristics. Ardsale will define the term "class characteristics." After inspecting evidence for class characteristics, if the class characteristics of the two cartridge cases are not clearly different, Ardsale proceeds to light or virtual comparison microscopy. Ardsale will testify regarding his light and microscopic examinations. Ardsale will testify that there are three options after the completion of the above tests: (1) source exclusion; (2) source identification; or (3) inconclusive. Ardsale will testify and explain all three terms.

Based upon his education, training, experience and examinations in the instant case, Ardsale will offer the following opinions:

Items 108-119 (cartridge cases) had been fired from the Ruger. Items 42, 43, and 44 are 12 gauge shotgun shellcases and they were fired in the same shotgun.

Items 20-1 and 21-1 are .22 caliber deformed bullet fragments. Item 23 is a deformed bullet fragment of unknown caliber. Item 21-1 was fired from a barrel rifled with six grooves, right twist. Item 20-1 was fired from a barrel with six grooves, but a directionality of the twist could not be determined.

Item 56 and Item 58 are .22 .22 long rifle caliber cartridges. Items 20, 21, 24 and 25 are metal fragments that bear no marks of value for comparison purposes.